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1. General Information

This Program Description and Solicitation will help you understand the Commercial Operations and Support (O&S) Savings Initiative (“COSSI”) of the Dual Use Applications Program (DUAP) so you can decide whether or not you should submit a proposal for this competition. It will also tell you how to prepare your proposal.

The DUAP is a joint program of the Army, Navy, Air Force, Director, Defense Research and Engineering (DDR&E), and the Defense Advanced Research Projects Agency (DARPA), and is administered by the Joint Dual Use Program Office (JDUPO).

You may obtain additional copies of DUAP documents by:

- Calling 1-800-DUAL-USE (1-800-382-5873) Monday through Friday from 8:00 AM to 6:00 PM., Eastern Time;
- Sending a fax addressed to “Joint Dual-Use Program Office” to (703) 807-0678.
- Sending e-mail to Internet address Dual-Use@arpa.mil.

- Downloading from our World Wide Web site at <http://www.jdupo.darpa.mil/jdupo/index.html>

2. Mission and Program Concept

2.1. Overview

COSSI’s mission is to develop and test a method for reducing Department of Defense (DoD) O&S costs by inserting commercial products and processes into fielded military systems. A fielded military system is one that has some current operational capability. A system that is near the end of its useful life is not an appropriate target for this program.

The insertion of commercial products and processes is expected to reduce O&S costs by reducing the costs of parts and maintenance, reducing need for specialized equipment, increasing reliability, and increasing the efficiency of sub-systems.

This program seeks proposals submitted by firms or teams that include at least one for-profit firm. Proposals must also have the written support of a “military customer.” Selected proposers will develop, manufacture and deliver prototype

“kits” to the military for installation into a fielded DoD system. Each kit will consist of a commercial product or process that has been adapted, qualification-tested and readied for insertion. Proposers may also choose to offer maintenance service agreements for their kits to assure their performance and reliability.

In Stage I of each selected project, DUAP and the chosen proposer will share the costs of developing and testing the kit. In Stage II, provided Stage I has been successful, the military customer may purchase reasonable production quantities of the kit and payment for their insertion into the fielded system will be the responsibility of the military customer. Proposals must include target prices for kits and—if you choose to propose them—the maintenance service agreements.

It will be the Services’ goal to purchase the selected kits and, if applicable, maintenance agreements in Stage II:

- without recompetition.
- at a fair and reasonable price based on an analysis of the *value* of the kits to the Service (for O&S savings), and
- without requiring proposers to provide detailed cost and pricing data.

To reduce the traditional administrative burden and oversight of government contracts, we plan to use, during Stage I, an innovative type of agreement—one not generally subject to the normal Federal procurement laws and regulations—known as an “Other Transaction.” This type of agreement allows a great deal more flexibility and has far fewer regulatory requirements than a typical Federal Acquisition Regulation (FAR) contract. In particular, this initiative will not generally require government cost accounting standards nor government cost audits. Furthermore, intellectual property provisions may be negotiated that differ from those usually found in procurement contracts.

2.2. O&S Cost Savings

For the purposes of this initiative, O&S costs will be computed as the sum of direct costs of owning and operating a military system, including the cost of personnel. They do not include any costs associated with developing, purchasing or disposing of the system.

2.3. Commercial Product or Process

For the purposes of this initiative, a “commercial product” is a product or service that is of a type customarily used for non-governmental purposes and that has been sold, leased, or licensed to non-government buyers, or has been offered

for sale, lease, or license to non-government buyers. A “commercial process” is a process used to produce a “commercial product.”

In some cases, kits based on “imminently commercial” products or processes, those that are *just about to be* commercialized *may* be acceptable to this initiative *if* the proposer can convincingly show that there are clear plans for the product or process to be available for sale, lease, or license by non-government buyers by the time Stage II would begin. However, a currently available product or process will be preferred over an imminent one.

If the kit you would propose is not based on a currently available or “imminent” commercial product or process, please *do not* submit a proposal.

2.4. Proposals Outside the Scope of this Program

Some types of proposals that may be related to commercial insertion or O&S savings are nevertheless outside the scope of this program. If your project falls into one of the following categories, please **do not submit** a proposal to this program:

- Proposals to reduce either the procurement or O&S costs of military systems that are not yet fielded or that are near the end of their useful lives.
- Proposals to conduct studies.
- Proposals to recapitalize a facility or purchase equipment.
- Proposals to establish a center of excellence or other organization that will then seek out O&S-cost-reducing projects. Related to this are proposals that submit a series of potential problems without listing the specific solutions to be pursued.
- Proposals to establish fee-for-service organizations to test a series of kits or qualify a broad variety of commercial products and processes for military use without identifying the specific military system they would be used in.

If your proposal is determined to be out of scope, it will not be evaluated.

2.5 Two-Stage Process

As indicated above, selected projects will be performed in two stages. In Stage I each selected proposer will:

- conduct the Non-Recurring Engineering (NRE) required to create a kit that can be used in a fielded military sys-

tem; and

- perform the testing needed to verify that inserted kits will produce the predicted O&S cost savings while at least maintaining the current system level performance of the fielded system.

At the end of Stage I, the Military Service that operates and maintains the fielded system for which the kits are developed, will decide whether to proceed. The military customer will decide, based on the results of the Stage I, whether to buy the kits and any fixed-price maintenance service agreement the proposer has offered. Accordingly, Stage I proposals must include target prices and quantities for the kits and any maintenance service agreement if applicable.

2.5.1. Stage I—Non-Recurring Engineering and Qualification Testing

NRE is the one-time engineering required to adapt the commercial product or process for use in a military system. NRE includes developing and implementing interface, environmental, or performance improvements (see Figure 2-1). NRE

may also be required on the target system to prepare it and to receive the kit. Stage I may also include any qualification testing required to demonstrate to the military customer that the kit will preserve an equivalent system-level performance and produce the expected O&S savings. This testing will enable the military customer to decide whether to proceed to Stage II. In many cases, this qualification testing may involve a military laboratory or facility.

Stage I will nominally last one to two years. You will be expected to share the cost of Stage I with the DUAP.

2.5.2. Stage II—Service-Funded Insertion of Kits

Based on the results of Stage I, the military customer will decide whether to proceed to Stage II (see Figure 2-1). If the Service decides to proceed, the military customer’s goal will be to purchase a reasonable production quantity of kits and, if applicable, optional maintenance service agreements:

- without recompetition.
- at a fair and reasonable price based on an analysis of the value of the kits to the Service (for O&S savings), and

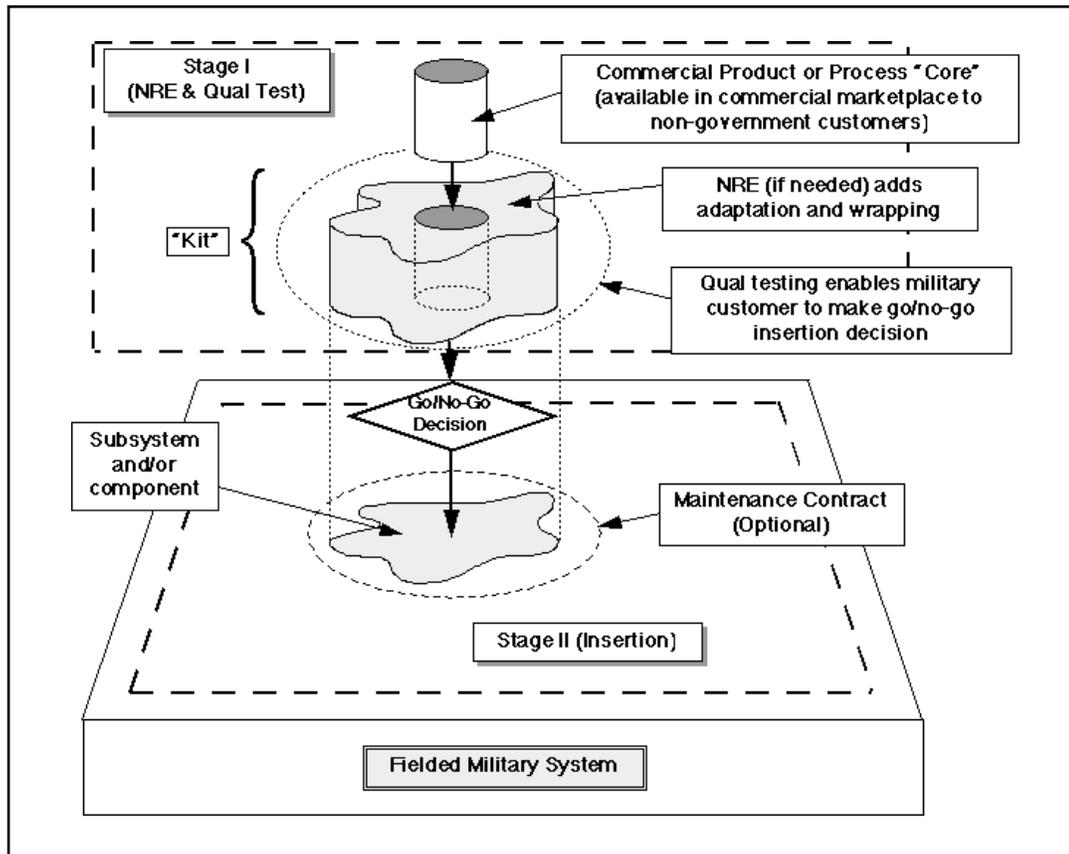


Figure 2-1

- without requiring proposers to provide detailed cost and pricing data in the usual sense.

The Services reserve the right, however, to purchase no kits in Stage II for reasons that may include;

- unacceptable system-level performance;
- an unacceptable price for the kits, particularly if it exceeds the proposed target price;
- O&S saving expected to stem from the kits that are inadequate or significantly less than anticipated; and
- unavailability of funds to purchase the kits

You must describe your plans for Stage II in your Stage I proposal. This means stating as part of your proposal your best-estimate target price and quantity for the kits and (if applicable) your target price for any maintenance agreement. We need this information to clearly evaluate potential DoD O&S savings.

2.6. Who May Propose?

2.6.1. Minimum Requirements

Each proposal team must include, at a minimum, at least one for-profit firm. That is, proposals may come from either a single for-profit firm or a team that includes at least one for-profit firm. The term “proposal team” in this document should be understood to mean a team having one participant *or more*.

“Partner” and “team” are used in this document to suggest a close working relationship and do not indicate the creation of a new or separate legal entity.

2.6.2. Other Team Members

Your proposal team must include the people and organizations who have the capabilities needed to carry out both Stage I and Stage II of the project. The more complete the capability presented by the entire proposal team to complete both stages, the better your proposal will fare in this competition.

The typical team would include (or simply consist of) a prime contractor or a major supplier of defense systems capable either of integrating the commercial product or process into the military system or of performing the technological “wrap” necessary to do so, or both. The supplier of the commercial product or process underlying the kit may also be an appropriate member of the proposal team.

Small businesses and historically black colleges and univer-

sities (HBCUs) and minority institutions (MIs) are encouraged to participate as team members. In any case in which the evaluation of two or more proposals is substantially equal, preference for award will be given to those proposals which include small businesses, HBCUs and MIs as participants over those which do not.

2.6.3. Role of the Military Customer

The military customer is the Army, Navy, or Air Force organization that (i) will oversee Stage I, (ii) has the authority, assuming funds are available, to decide whether or not to proceed to Stage II, and (iii) will be likely to have technical and procurement responsibility for implementing the insertion and maintenance agreement. In general, this military customer will be a military program manager, who is responsible for the system into which the proposed kit will be inserted.

This customer is crucial to each proposal team. The military customer’s relationship with the proposal team is intended to facilitate the sharing of government program information to support creation of the proposal. Your entire project and proposal must include a signed statement from the military customer stating that the proposed project is technically sound and has a good chance of saving O&S costs without degrading the performance of the military system. *Proposals that do not have the documented support of a military customer will not score well.*

2.6.4. Statement of Service Support

The military customer must, in a formal statement, recommend that DoD undertake the Stage I effort and be willing to be responsible for providing the technical oversight for Stage I, and for the decision to proceed with Stage II. In addition, this customer may also make any needed arrangements for qualification testing at government facilities, and may supply you with any special equipment necessary for this testing.

2.7. Flexible Cost Sharing Requirement

You will be expected to share the cost of the Stage I effort with DUAP using non-federal funds. There is no minimum or specified level of cost sharing for you to propose. However, proposals that include higher levels of non-federal funding will be viewed more favorably.

Willingness to pay a larger share of Stage I costs demonstrates a confidence by the members of a proposal team that they will successfully reach Stage II. The form and quality of the way in which you propose to share costs will be considered in the proposal evaluation process.

Your approach to determining your share of Stage I costs should be simple and direct. Simply determine the total costs for your team to carry out the Stage I statement of work (SOW) and decide what portion of them you are willing to bear. The balance of the Stage I costs in your proposal would then be the portion to be borne by the DUAP. For more information, refer to Section 3.2.6, below.

Many government contractors receive government-reimbursed funds for independent research and development (IR&D). DUAP intends to use contractual instruments (called "Other Transactions") for Stage I that will allow you to choose to use IR&D funds on the Stage I SOW as part of your share of costs (see FAR 31-205.18(e)).

2.8. New Acquisition Approaches

Both you and your military customer must be aware of new acquisition approaches that are central to this initiative.

During Stage I, we plan to use an innovative type of agreement—one not generally subject to the normal Federal procurement laws and regulations—known as an "Other Transaction." The authority to use such agreements for prototyping relevant to weapon systems was given to DARPA by Section 845 of the Fiscal Year 1994 Defense Authorization Act (P.L. 103-160), as amended by Section 804 of the Fiscal Year 1997 Defense Authorization Act (P.L. 104-201), and to the Services by Section 804 of the Fiscal Year 1997 Defense Authorization Act (P.L. 104-201). This type of agreement allows a great deal more flexibility and has far fewer regulatory requirements than a typical FAR contract. In particular, this initiative will not generally require government cost accounting standards nor government cost audits; and intellectual property provisions may be negotiated that differ from those usually found in procurement contracts.

Funding under this type of agreement will be based on "payable milestones." These are significant, observable technical events that you and the government agree in advance will be the basis for incremental payments making up DUAP's share of Stage I expenditures. This approach tends to be fairly flexible, and milestones may be easily changed during the course of the project.

The total amount of government funds available for Stage I of the project will be fixed at the beginning of the project. No additional funds will be made available by DUAP for Stage I under any circumstances. If the costs to complete Stage I exceed the amount initially agreed to, then your team must either absorb them or may choose—as your "Other Transaction" prototyping agreement will permit—to quit the project.

During Stage II, the actual kit insertion will be carried out by the Services under separate business arrangements in the manner described in Section 2.5.2, above.

2.9. Schedule

- January 15, 1997 Publication of this solicitation.
- February 12, 1997 Bidders' Conference at a location in the National Capital Region.
- March 18, 1997 Proposals due by 4:00 PM, Eastern Standard Time
- May 2, 1997 Proposals selected for negotiation.
- *All Stage I Agreements must be in place by September 30, 1997. There can be NO EXCEPTIONS. The funding for this program will expire by Congressional direction unless it is obligated by September 30, 1997. Actual work under this funding may extend after that date, however.*

2.10. Funds Available

A total of \$100 million has been appropriated for Stage I projects selected under this competition.

Stage II purchases—insertions and maintenance agreements—will be funded by the military customer. No DUAP funds are available to fund Stage II.

3. Selection Criteria

3.1. Criteria

Only the following six selection criteria will be used to evaluate your proposal. A low score on any one of these criteria can eliminate your proposal from further consideration.

1. O&S Savings:
 - Extent to which your proposed kit will reduce the O&S costs of the fielded military system you propose to modify, measured primarily by the Net Present Value of the savings to DoD and by the Benefit-to-Cost Ratio for your proposal, and secondarily by the length of the Payback Period.
 - Likelihood that your project will achieve the proposed O&S cost savings.
2. Commercial Technological Leverage:
 - Degree to which commercial products or processes make up the "core" of your kit.
 - Degree to which your kit will use open commercial standards.

- 3. Equivalent System Performance:
 - Assurance and plans to demonstrate that use of your kit will maintain at least equivalent levels of system performance after insertion.
- 4. Technical and Management Approach:
 - Clarity of your technical approach and objectives.
 - Description, appropriateness, and clarity of your plan's decision points and endpoints in Stages I and II.
 - Quality, experience, and appropriateness of your team's members.
 - Degree to which your team members' capabilities are complementary, including the appropriateness of each members' role.
 - Degree to which your project management plan (e.g., organizational structure, staffing, and management) supports the government's confidence of success in the project.
 - Adequacy of your resources for the proposed project.
- 5. Military Customer Commitment:
 - Clear identification of the specific military customer and the fielded system on which you will install your kits.
 - Strong support by the military customer of the utility of the proposed kit in the specified fielded military system and its technical soundness.
 - Military customer support for the qualification testing plan for the go/no-go decision on Stage II.
 - Confidence presented by the military customer that this project will achieve significant O&S savings for the DoD.
 - Other indications of commitment by the military customer, such as support for additional testing, to implement the kit in the specified fielded military system.
 - Demonstration that the military customer either has or is actively pursuing funds for acquiring the proposed kits for Stage II.
- 6. Non-Federal Cost Share:
 - Level of proposed costs you offer to bear.
 - Quality of your share of Stage I costs.

3.2. Discussion of Selection Criteria

The discussion below will give you a better understanding of how your proposal will be judged against the selection criteria. Please read it carefully.

3.2.1 O&S Savings

Strong proposals will demonstrate large potential savings in O&S costs resulting from the project within 10 years of the beginning of Stage II. These benefits will be measured primarily by the Net Present Value and Benefit-to-Cost Ratio of DoD's investments in Stage I and Stage II. The Payback Period for these investments will be a secondary measure. The more certain the DoD is of obtaining these savings, the more attractive the proposal will be. Good proposals will clearly demonstrate how and when these anticipated savings are expected to accrue.

Use the following guidelines in preparing your analysis of O&S savings:

Compute Net Present Value, Benefit-to-Cost Ratio, and Payback Period using **constant 1997 dollars** and the following discount rates:

Total Period of Analysis (Years)	Discount Rate (%)
0 to 3	2.7
3 to 5	2.7
5 to 7	2.8
7 to 10	2.8
Over 10	3.0

- Net Present Value is the present value of the O&S savings to DoD minus the present value of the costs to DoD of implementing the project. Benefit-to-Cost Ratio is the ratio of the present value of the O&S savings to the present value of the costs. Payback Period is the time until the present value of benefits starts to exceed the present value of costs.
- In computing these figures, include *all* the costs to the government of implementing your proposal: the NRE and testing during Stage I, kit purchases during Stage II, purchase of maintenance agreements, and any other costs to be borne by the government.

- The time period for your O&S saving analysis should be *no longer than 10 years* from the beginning of Stage II, i.e., the go/no-go decision. Use only one of the discount rates in 3.2.1 in making your calculations.

You should discuss the top level results of your O&S savings analysis in the main proposal. The O&S Saving Analysis Supplement should be used to present the data and analysis needed to clearly substantiate your claims.

For more information and a suggested format for your O&S Savings Analysis Supplement, see the Appendix to this Program Description and Solicitation.

3.2.2 Commercial Technological Leverage

You must demonstrate in your proposal that the product or process that forms the core of the kit is a commercial product or process. In addition, proposals for kits that will use open commercial standards will be viewed more favorably, since they offer the prospect for avoiding obsolescence by ready insertions of new generations of commercial technology.

This initiative may also accept technology that is *headed toward* the commercial marketplace, but the plans for that technology actually getting to the commercial marketplace by time of Stage II must be *clearly* shown. This type of commercial leverage will be regarded less favorably than will already commercial products or processes.

Proposals will score poorly if they are based on technology that (i) is not currently available in the commercial marketplace and has neither clear plans nor pathways for sale to non-government customers, or (ii) is or will be available for sale only to government customers. Conversely, proposals that are based on widely-used commercial technologies will fare better than those whose “commercial core” has more narrow application outside the defense realm.

3.2.3 Equivalent System Performance

Insertion of the kit must not reduce system performance in the military system in which it will be inserted. The stronger the evidence in your proposal and the higher the certainty that your kit will not lower the overall system’s level of performance, the better your proposal will score. Efficacy of your test plan and its endorsement by your military customer are essential.

Improved performance, whether at the component, subsystem, or system level, is *not* a primary driver of this program and will not substantially increase your proposal’s score.

3.2.4 Technical and Management Approach

Your proposal will score well in this area if you have a clear technical approach and objectives with definite decision points and endpoints. Strong proposals will clearly lay out both project risks and plans for dealing with them. Your project team will be evaluated favorably if it includes substantially all of the program capabilities, personnel, and resources necessary to carry out both Stage I and Stage II of the project. Strong teams will demonstrate a collective synergy between partners and be organized in a way that permits efficient and effective execution.

3.2.5 Military Customer Commitment

Proposals must be accompanied by a clearly written, and compelling statement of support signed by the intended military customer, one showing the customer’s confidence that the technical approach proposed for the NRE and qualification testing in Stage I is acceptable, and that the kit should maintain equivalent system level performance and should lead to the claimed O&S savings. The military customer can show support and commitment to a project by contributing technical support (e.g., facilities and equipment for qualification tests). In particular, proposals that have military customers who demonstrate that they will have funds for acquiring the proposed kits in Stage II or, failing that, are actively pursuing funds to carry out Stage II, will be judged more favorably.

3.2.6 Non-Federal Share of Project Costs

You are expected to share project costs only during Stage I; all Stage II costs will be borne by the Services.

3.2.6.1. General Principles and Discussion

For evaluation purposes, we will generally break the way proposers bear their share of Stage I costs into two categories. It is to your advantage to assure that your proposed share of costs consist as much as possible of items that will be considered during evaluation to be of “High Quality” as described in this section.

1. High Quality contributions include:

- Financial resources *spent* on the Stage I SOW, dedicated to that SOW, and under control of the project management. Operationally this means spending cash and writing checks to pay for people, materials, equipment, subcontracts, etc., used to carry out the SOW. These amounts can include government-reimbursed IR&D funds.
- The cost of restocking inventoried parts and material

consumed on the Stage I SOW

2. **Low Quality** items that may appear as part of a proposer's share of costs include:

- In-kind, non-financial resources used on the project, such as the wear-and-tear on capital assets like physical plant, equipment, or software. This category includes the value of space used.
- Resources or activities not dedicated to or spent on the SOW or not under the control of the project management.
- Forgone fees and profits.
- Sunk costs, i.e., any costs occurring before the start of Stage I.
- The value of intellectual property brought to the project.

Costs for activity not under *both* the SOW and the control of the project management will not be included in evaluating your share of Stage I costs.

3.2.6.2. *Government Technical Assistance*

Your military customer may provide you with technical assistance or services as part of the project. Examples of this include engineering advice and the use of government test equipment. Do not include the internal government costs of this assistance in your cost sharing calculations.

In those cases where there is an exchange of funds—for example, if you have to pay for the use of a government test facility—those funds will be an appropriate part of your share of the costs in your Stage I cost proposal.

4. How to Propose

If you have a concept that addresses O&S cost savings for a specific military system that you think is a good fit to this program, your most productive route is to contact both your potential military customer and the prime contractor for that system to discuss your concept. Both of these parties will typically have a great deal of the technical and cost information necessary to determine the O&S cost saving attractiveness of your concept. You should explore the possibility of working together with the prime contractor on a proposal and approach the potential military customer about the possibility of supporting your proposal. Prime contractors, for instance, typically have a great deal of system data and insight, and partnering with a prime may be the best way to accomplish successfully the system insertion you are contemplating for Stage II. Please note, however, that no prime

contractor is under any obligation to partner with you on any proposal, nor is any potential military customer obligated to support your proposal.

4.1. Proposal Structure

Your proposal will consist of several parts: the main proposal (including the military customer statement of support), the Stage I cost proposal, the O&S Savings Analysis Supplement, and, if warranted, the attachment of modified agreement terms and conditions. Together, these parts must lay out all of your anticipated plans, costs, and benefits for Stages I and II, and beyond.

4.1.1. Suggested Outline for the Main Proposal

The main proposal may not exceed 35 pages (including the Executive Summary but excluding the cover sheets). Material appearing beyond the 35th page simply will not be considered in our evaluation.

4.1.1.1. *Executive Summary*

Include an executive summary of your entire proposal *not more than 5 pages long* that presents the entire case for your project.

4.1.1.2. *Military Customer Statement*

Your proposal must include a statement from your military customer. It should describe why the customer believes this project is technically sound and will achieve long-term O&S savings for the DoD without any sacrifice in the specific system performance. This is essentially a recommendation that the DoD should undertake this project. Your military customer should also indicate readiness to assume management responsibility for Stage I and Stage II, and recognition of the nonstandard acquisition approaches used under this program.

Your military customer should also describe any funds it has set aside for Stage II, or how and when it intends to obtain these funds. In addition, it should also describe any technical assistance it intends to provide to the proposal team, e.g., government furnished equipment, use of military facilities, or any other engineering and qualification testing support.

4.1.1.3. *Statement of Project Plan*

Describe your technical and business plans for both Stage I and Stage II of the project. Discuss the commercial product or process you are inserting and on what basis you claim it to be “commercial.” Describe what NRE is required to in-

sert the product or process properly into the military system and what testing is required to make an insertion decision for Stage II. For all phases of the project, you need to describe, in detail, the management and technical decision points (which need not coincide with the Payment Milestones in the Cost Proposal) and the associated risks. Include a project schedule.

Describe your plans for Stage II, including your target price and quantities for the kits, and, if you intend to offer one, the target price and terms for your maintenance agreement.

4.1.1.4. *Proposal Team*

This section of your proposal must identify the members of the proposal team (organizations and key individuals) and describe their roles. Also describe the project management structure—who is in charge, who is responsible for what portion of the work, and how your team will make decisions.

4.1.1.5. *O&S Saving Analysis*

In this section, summarize and discuss the claims made for the O&S cost savings that will accrue to the DoD within 10 years after the beginning of Stage II. Show the top level financial analysis, such figures of merit as net present value, benefit-to-cost ratio, and payback period. Discuss what specific cost elements will produce most of the savings and why your project or kit will lead to these improvements. The detailed backup for this discussion and your calculations must be provided in your O&S Savings Analysis Supplement.

4.1.1.6. *Stage I Statement of Work and Payable Milestones*

This section will include: (i) your proposed Stage I statement of work, and (ii) a schedule of the Stage I payable milestones.

4.1.1.7. *Selection Criteria Index*

We require that you include in your proposal a one-page index showing the pages on which each of the selection criteria is addressed in your proposal.

4.1.2. *Stage I Cost Proposal Instructions*

Your cost proposal must be structured around the payable milestones. There is no page limit on the cost proposal. It must include one "COSSI Stage I Total Cost Summary Sheet C-4" and a "COSSI Stage I Milestone Cost Summary C-5" for each payable milestone, and any additional data needed to substantiate the appropriate payment amount for each milestone. Your cost proposal must cover the NRE and qualification testing costs that are paid by the team, including any

direct payments for the use of any government facility or equipment. Do not include the costs of technical assistance or use of government facilities or equipment provided to your team by the military customer.

4.1.3. *Proposal Formatting Instructions*

The main proposal page count shall include every page, including pages that contain words, table of contents, executive summary, management information and qualifications, resumé, figures, tables, and pictures. All proposals shall be printed such that pages are single-sided, with no more than fifty-five (55) lines per page. Use 21.6 x 27.9 cm (8 1/2" x 11") paper or A4 metric paper. Use an easy-to-read font of not more than about 5 characters per cm. (fixed pitch font of 12 or fewer characters per inch or proportional font of point size 10 or larger). Smaller type may be used in figures and tables, but must be clearly legible. Margins on all sides (top, bottom, left and right) must be at least 2.5 cm. (1").

4.1.4. *O&S Savings Analysis Supplement*

The purpose of this Supplement is to provide necessary backup data for your expected O&S savings. Include an O&S summary sheet and a description of the cost elements for each year of the savings analysis. Significant variations or changes in any year should be described, along with reasons for the change. If your supplement includes spreadsheets, you must also provide them in electronic form as EXCEL® files on a 3 1/2" diskette formatted for either Macintosh® or MS-DOS®. Be sure to label diskettes to match the title of the proposal.

See the Appendix to this Solicitation for detailed instructions.

4.1.5. *Agreement Terms and Conditions*

Your proposal should include any changes that you wish to request from the terms and conditions included in the sample "Other Transaction" prototyping agreement that may be found at the JDUPO World Wide Web site or may be requested by fax, email or phone (See Section 1.General Information). If all of the provisions of the sample agreement are acceptable to you, then include a statement to that effect. If there are changes that you wish to propose, then provide the text of the provisions *as you would like to see them included in an agreement as an attachment to your proposal (it will not count as part of your 35 pages)*. In view of the short deadline for entering into agreements (September 30, 1997), failure to identify any desired changes could jeopardize awards to proposals selected for negotiation.

4.2 Where And When To Submit Your Proposal

Five copies of your proposal must be delivered to:
 Defense Advanced Research Projects Agency
 ATTN: Joint Dual-Use Program Office
 3701 North Fairfax Drive
 Arlington, Virginia 22203-1714

**PROPOSALS RECEIVED AFTER
 4:00PM EST, TUESDAY, MARCH 18,
 1997 WILL NOT BE ACCEPTED.**

You must submit proposals and proposal modifications in sealed envelopes or packages addressed to the address above. They must arrive by the deadline, and must have the following information on the outer envelope or wrapping:

- a. Offeror's name and return address.
- b. The proposal receipt address above.
- c. Program Name ("Commercial O&S Savings Initiative Dual Use Applications Program" and Solicitation Number (SOL 97-12).

Each package may only contain one proposal set (i.e. five copies). Hand-carried proposals must be delivered to the DARPA mailroom on the eighth floor at the above address. Document receipts will be available upon request. Proposals submitted by electronic mail, telegraph or facsimile will not be accepted. Proposals may be modified only in writing by the deadline.

JDUPO will send letters acknowledging receipt of each proposal. If you have not received a letter by April 4, 1997, please contact the JDUPO by phone, fax, or electronic mail for information (See Section 1. General Information)

5. Intellectual Property Policies

The statutes and FAR provisions that customarily determine the allocation of rights in intellectual property in government-funded research projects do not apply to "Other Transactions." The allocation of rights and grants of licenses in intellectual property developed in the course of Stage I NRE and testing will be negotiable. With respect to patentable inventions, however, the government's *initial* position will be that the same rights and licenses will apply as if the Bayh-Dole Act were applicable.

As to "technical data" (as that term is defined under the FAR), there *will* be a requirement for Stage I that the contractor

provide the government a technical data package containing the form, fit, function, and interface ("F³I") specifications of the kit. In most cases, no other technical data delivery to the government will be required. This F³I information may be used by the government at some point beyond the completion of Stage II to recompute future kit procurements, if necessary. We are not interested in obtaining any special government rights in proprietary technology for the inserted kit or in the underlying commercial product or process.

6. Legal Notices

6.1. Proprietary Nature of Information and Licenses

Submission of a proposal constitutes the grant of a license to the Government to evaluate the proposal for the purposes of DUAP and other possible public funding opportunities. You may restrict this license to this competition only by placing a *conspicuous legend* on the DUAP Cover Sheet and all pages stating, "For DUAP Evaluation Purposes Only"; provided, however, that if an agreement is awarded as a result of evaluation and negotiation, the rights of the Government in the proposal shall thereafter be as specified in that agreement.

Each proposal is expected to contain technical and business ideas. Legends asserting the proprietary nature of a proposal may be used. For purposes of the Freedom of Information Act, the JDUPO considers that proposals contain commercial or financial information submitted on a privileged basis. The JDUPO considers each proposal submitted to be a literary work fixed in a tangible medium of expression and, therefore, subject to the author's copyright.

Employees of the Department of Defense, the Military Services, or other government agencies will evaluate and select proposals jointly. All Government employees are bound by statute (18 U.S.C. §1905) not to disclose proprietary information. An indication that information is proprietary should be included where appropriate in top and bottom margins. The Government will not execute individual non-disclosure statements with proposers.

JDUPO may use non-government technical experts to assist with the evaluation of proposals. In such cases non-disclosure and non-compete agreements will be executed with such individuals.

Your proposal may be limited to review by government personnel only by prominently marking your proposal with a label stating: GOVERNMENT ONLY ACCESS

6.2. Procedures for Protest

Objections of any kind to this solicitation may only be made in writing. You must submit them to the JDUPO at the address given above for proposal delivery fifteen (15) calendar days after the solicitation notice is published in the Commerce Business Daily.

Objections or other actions in the nature of protest of any DUAP selection, announcement, or award will only be considered if made in writing. These, too, must be submitted to the JDUPO at the address given for proposal delivery within ten (10) calendar days after the selection, announcement, award, or other action giving rise to the objection.

Timely objections will be considered and appropriate administrative relief granted if deemed warranted.

6.3. Late Proposals

NO proposal or modification received after the stated date and time will be considered unless it is received before any award being made under this solicitation and:

- it was sent by registered or certified mail on or before March 11, 1997 or by U.S. Postal Service Express Mail Next Day Service-Post Office to Addressee on or before 3:00 PM at the address of mailing on March 14, 1997, or
- it was sent by mail and its late receipt is determined by the JDUPO to be due solely to mishandling by the Government after receipt at the address above.

The only acceptable evidence to establish the mailing date of a late proposal or modification sent either by Express, registered, or certified mail is the U.S. Postal Service postmark both on the original receipt and the envelope or wrapper. All postmarks must show a legible date or the proposal will be processed as if mailed late. Proposals sent using private express services must be received by the deadline.

Appendix. Suggested Approach to O&S Savings Analysis Supplement

A suggested approach to the Supplement is to include the following features:

- A year by year comparison of the system’s baseline O&S costs (“baseline” means the system proceeds without implementing the project you are proposing) with the costs if your project is implemented. This comparison must use your cost element structure and show the changes in costs and savings created by your project in each year. (Totaling the time discounted value of these costs and benefits yields your top level summary.) You might wish to do one sheet for each year of your analysis. Figure App-1 illustrates how one year of this cost summary might appear for a fictitious program.

Cost to DoD of Implementing COSSI Project		Baseline Costs in Year 3 (Millions 97 \$)	Cost When COSSI Implemented	Change From Project	Discounted Value
	Stage I	\$0.00	\$0.00	\$0.00	\$0.00
	Stage I	\$0.00	\$0.25	-\$0.25	-\$0.23
	Maintenance Contract	\$0.00	\$0.01	-\$0.01	-\$0.01
	Other	\$0.00	\$0.20	-\$0.20	-\$0.18
	Total	\$0.00	\$0.46	-\$0.46	-\$0.42
O&S Costs					
	POL/Energy	\$1.00	\$0.50	\$0.50	\$0.46
	Maintenance Labor	\$0.50	\$0.25	\$0.25	\$0.23
	Parts	\$0.25	\$0.20	\$0.05	\$0.05
	Total	\$1.75	\$0.95	\$0.80	\$0.73
Grand Total		\$1.75	\$1.41	\$0.34	\$0.31

Figure App-1: Illustration of the cost sheet for one year of an example, fictional COSSI project.

Cost to DoD of Implementing COSSI Project		Present Value \$ Millions
	Stage I	-\$1.0
	Stage II	-\$4.0
	Maintenance Contract	-\$2.5
	Other	\$0.2
	Total	-\$7.7
O&S Savings From COS project		
	POL/Energy	\$7.0
	Maintenance Labor	\$3.0
	Parts	\$2.0
	Total	\$12.0
NET Present Value of Project =		\$4.3
Benefit-to-Cost Ratio =		1.6

Figure App-2: Illustration of an example, fictional cost element summary.

- A discussion of the assumptions used in conducting the analysis and their basis.
- A top level summary, using your cost element structure, showing the present value of those cost elements. Adding up these elements yields the Net Present Value of the project; dividing them yields the Benefit-to-Cost ratio. Figure App-2 illustrates an example, fictional representation of how this summary might appear.
- Any additional analysis or discussion for any or all years, needed to explain and substantiate your numbers and claims.

Cost Element Structures

In conducting your O&S savings analysis, you must identify what DoD cost elements will be changed by your project—where the costs and savings benefits will come from. You should arrange those elements into a structure that will be used consistently throughout your analysis and proposal. This cost element structure will be the framework for your O&S analysis.

Operations and support costs typically include *all* the costs of owning, operating, maintaining, and supporting a fielded DoD system during peacetime. This includes costs for: personnel; consumable and repairable materials; organizational, intermediate, and depot maintenance; facilities; and sustaining investment. O&S costs *do not include* the costs of developing, initially purchasing, improving the performance of, or disposing of fielded systems.

The following is a *generic* cost element structure that includes many of the cost elements that could be included in your O&S saving analysis. *It is illustrative only.* You should include in your structure only those elements that will be changed by your project; hence, in most cases, this entire structure will *not* be needed. You may arrange your structure in any way you wish, keeping in mind that the validity of your O&S savings claims must be made clear.

<p>A. DoD Costs to Implement COSSI Project</p> <p> A.1. Stage I</p> <p> A.1.1. Nonrecurring Engineering</p> <p> A.1.1.1. Hardware</p> <p> A.1.1.2. Software</p> <p> A.1.1.3. Integration</p> <p> A.1.2. Qualification Testing</p> <p> A.1.2.1. Hardware</p> <p> A.1.2.2. Software</p> <p> A.1.2.3. Integration</p> <p> A.1.3. Technical Support from Military Customer</p> <p> A.1.4. Other</p> <p> A.2. Stage II and Beyond</p> <p> A.2.1. Kit Purchase</p> <p> A.2.2. Maintenance Contracts</p> <p> A.2.3. Technical Support from Military Customer</p> <p> A.2.4. Other</p> <p>B. O&S Costs of Fielded System</p> <p> B.1. Mission Personnel</p> <p> B.1.1. Operations</p> <p> B.1.2. Maintenance</p> <p> B.1.3. Other Mission Personnel</p> <p> B.2. First Line Unit-Level Consumption</p> <p> B.2.1. Petroleum, Oil, Lubricants/Energy Consumption</p>	<p> B.2.2. Consumable Material/Repair Parts</p> <p> B.2.3. Depot-Level Repairables</p> <p> B.2.4. Training Munitions/Expendable Stores</p> <p> B.2.5. Other</p> <p> B.3. Intermediate Maintenance (External to Unit)</p> <p> B.3.1. Maintenance</p> <p> B.3.2. Consumable Material/Repair Parts</p> <p> B.3.3. Other</p> <p> B.4. Depot Maintenance</p> <p> B.4.1. Overhaul/Rework</p> <p> B.4.2. Other</p> <p> B.5. Contractor Support</p> <p> B.5.1. Interim Contractor Support</p> <p> B.5.2. Contractor Logistics Support</p> <p> B.5.3. Other</p> <p> B.6. Sustaining Support</p> <p> B.6.1. Support Equipment Replacement</p> <p> B.6.2. Modification Kit Procurement/Installation</p> <p> B.6.3. Other Recurring Investment</p> <p> B.6.4. Sustaining Engineering Support</p> <p> B.6.5. Software Maintenance Support</p> <p> B.6.6. Simulator Operations</p> <p> B.6.7. Range Support</p> <p> B.6.8. Other</p>
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Some Illustrative Cost Questions

The following questions provide insight into major cost drivers for some of the cost elements listed above. These are typical questions an evaluator might ask in order to fully understand the nature of the proposed savings. They are illustrations provided for your benefit; *the list is not exhaustive* nor will all of them apply to every project. Your main proposal should answer many of these types of questions.

Stage I Strategy (Element A.1)

Is NRE required? When will it begin and end? What is the expected cost, by year? What testing is required? When will it begin and end? What is the expected cost, by year?

Stage II Strategy (Element A.2)

What price do you expect DoD to pay for each kit? When will production of the kits begin and end? What are the delivery and installation schedules for the kits? Does the price include government transportation and installation costs? If not, what are these costs? What additional costs are required to integrate the systems using these kits with other DoD systems?

Personnel Costs (Element B.1)

Will insertion and use of the kits reduce personnel requirements system for the system? If so, how?

Petroleum, Oil, Lubricants/Energy Consumption (Element B.2.1)

Will the insertion of the kits reduce fuel/oil consumption? By how much (in terms of gallons per mile or hour of operation)? Explain how kit will cause reduction in fuel/oil usage.

Consumer Material/Repair Parts (Element B.2.2)

Will the insertion of your kit reduce demands for consumable materials/repair parts? Which ones (be specific with National Stock Number(s), nomenclatures, and quantity changes from the current baseline)? Explain how the kit will reduce these demands.

Depot-level Repairables (Element B.2.3)

Will the insertion of your kit reduce demands for depot-level repairable parts? Which ones (be specific with National Stock Number(s), nomenclatures, and quantity changes from the current baseline)? Explain how the kit will reduce these demands.

Maintenance Philosophy (Elements B2, B3 and B4)

Describe the maintenance concept for the kits. Are they to be discarded or repaired upon failure? Who will repair them and where? How much scheduled maintenance is required (actions per year)? Is additional test equipment required? What is the cost of this equipment?

Maintenance Costs (Elements B2, B3 and B4)

What is the expected maintenance cost per kit per year?

Reliability

What is the expected operational mean time between failure of the kits? What is the required frequency of scheduled maintenance (actions per year)?

Maintainability

How much personnel time is required for each scheduled maintenance action? What is the expected material cost per scheduled maintenance action?

How much personnel time is required for each corrective maintenance action? What is the expected material cost per corrective maintenance action?

Impact on Spares Holding Costs

Will there be a change in the required sparing level, causing a decrease or increase in spares holding (or inventory) costs? Does the existing system have inventories that could be used? If so, how much exists? Using this existing inventory is no cost to the Service and should be treated as such in the analysis.

Engineering Technical Support (Element B.6.4)

Will technical support requirements for operations or maintenance functions increase or decrease as a result of the insertion of the kits? Provide information justifying your conclusion.

Software Maintenance (Element B.6.5)

Integration with other existing components may require additional code, resulting in additional debugging efforts. Will the kits require more or less software maintenance? Provide information justifying your conclusion.

COSSI Proposal Top Cover Sheet C-1

JDUPO USE ONLY

2. Check Box of Service Customer

Army

Navy

Air Force

1. Proposal Title

3. Proposal Team Principal Point of Contact (Name, Organization, Address, Phone, FAX, E-Mail)

4. Military Customer (Fielded System, Organization, Name and Title)

5. Project Data Summary

Stage I Costs:

Total Cost of Stage I = \$ _____

Proposers' Cost Share = \$ _____

Government Cost Share = \$ _____

Stage II Price/Quantity Projection:

Target Unit Price for Stage II = \$ _____ per _____

Target Quantity for Stage II = _____

Total DoD Cost for Stage II Kits = \$ _____

Length of Stage I _____ months Price of Optional Maintenance Contract \$ _____ per _____

Net Present Value of COSSI Project to Government = \$ _____

Benefit-to-Cost Ratio = _____

Payback Period = _____ years

6. Project Abstract

INSTRUCTIONS FOR COMPLETING COSSI TOP COVER SHEET C-1

NOTE

Cover sheets are used to process your proposal. **It is important that all items be filled out accurately and completely.** Please type or print legibly. Please keep a copy of them handy for communicating with the JDUPO.

1. **Proposal Title**

This title, exactly as written here, will be necessary in all correspondence with the JDUPO.

2. **Service Customer Check Box**

Check the appropriate box identifying the service of your military customer. Check **only one** box.

3. **Proposal Team Point of Contact**

An individual from **one** organization should be designated the team's Proposal Point of Contact (PPOC). All communication regarding this proposal will be directed to this person. Include the individual's full name and title as it is to appear on correspondence. List the full name of the PPOC's organization (spell out acronyms) with the full mailing and street address, telephone, and fax numbers. An e-mail address, if available, should be listed here.

Please note that this person should also complete a Participant Data Sheet C-3, identifying themselves as the proposal Proposal Point of Contact by checking "yes" in block 2 of C-3.

4. **Military Customer**

Use this space to briefly identify the military customer, including the name of the specific fielded military system.

Please note that this person should also complete a Military Customer Data Sheet C-2, giving more complete contact information.

5. **Project Data Summary**

This space summarizes some of the top level data about your proposal.

6. **Abstract**

Briefly describe your project. JDUPO might use this paragraph for a public announcement if your proposal is selected for negotiation. Therefore, do not include business-sensitive information. This abstract will not be used for evaluation.

COSSI Military Customer Data Sheet C-2

JDUPO USE ONLY

1. Proposal Title (As appears in block 1 of Cover Sheet C-1)

2. Last Name:

First Name:

M.I.:

3. Title/Rank:

4. Fielded Military System:

5. Program Office/Service Organization:

6. Street Address:

7. City:

State:

Zip:

8. Phone:

Fax:

9. E-Mail:

I certify that I am authorized to represent this DoD organization.

Signature

Date

Print Name

Title

INSTRUCTIONS FOR COMPLETING COSSI COVER SHEET C-2

NOTE

The Cover Sheet provides detailed information for our database.

- C-2 is to be completed by your Military Customer only.
- All Cover Sheets should be submitted in numeric order with each proposals.

1. **Proposal Title**

Enter the proposal title exactly as written in block 1 of Cover Sheet C-1.

2. **Last Name, First Name, M.I.**

A single individual from the Military Customer should be listed as the contact.

3 - 9. **Various**

Please fill in the appropriate information. (Spell out acronyms)

10. **Signature**

Read this block, and sign and date it to acknowledge your participation. Faxed signatures are acceptable in the original document if that helps assemble it on time.

COSSI Participant Data Sheet C-3

JDUPO USE ONLY

1. Project Title (As appears in block 1 of Cover Sheet C-1):

2. Proposal Point of Contact

Yes No

3. Last Name:

First Name:

M.I.:

4. Title:

5. Organization/Firm Name:

6. Street Address:

7. City:

State:

Zip:

8. Phone:

Fax:

9. E-Mail:

10. Please check ALL boxes below that apply:

- a. Commercial Firm (majority of sales non-defense)
- b. Defense Firm (majority of sales defense)
- c. Small Business
- d. Hist. Black Coll. or Univ./Min. Inst. (HBCU/MI)
- e. Academic Institution
- f. Not-for-profit Organization
- g. Department of Defense Laboratory
- h. Government-Owned, Contractor Operated
- i. Other Federal Government Organization
- j. Other _____

11. I certify that I am authorized to bind the participant organization named above and that, to the best of my knowledge and belief, this is submitted by that participant in good faith.

Signature

Date

Print Name

Title

Instructions: Each participant on a proposal team shall complete this sheet, who should complete C-2. Copies of cover sheets should be attached with each copy of your proposal. There shall be one Proposal Point of Contact per proposal. That sheet should be placed first among all C-3 participant sheets. Please complete this sheet carefully. Please type or print legibly.

INSTRUCTIONS FOR COMPLETING COSSI COVER SHEET C-3

NOTE

The Cover Sheet provides detailed information for our database.

- C-3 is to be completed by all team members
- All Cover Sheets should be submitted in numeric order with each proposals.
- Your Principle Point of Contact's C-3 should come before all the other participants' C-3, and be the only one with "yes" checked in block 2

1. **Proposal Title**

Enter the proposal title exactly as written in block 1 of Cover Sheet C-1.

2. **Proposal Point of Contact**

If you are the Proposal Point of Contact please check "yes." **Only one** organization should be designated the Proposal Point of Contact for the proposal.

3. **Last Name, First Name, M.I.**

A single individual from **each** legal entity should be designated as the participant contact.

4 - 9. **Various**

Please fill in the appropriate information. (Spell out acronyms)

10. **Participant Characteristics**

Participant characteristics are for information only and will not be used for evaluation purposes. The information should pertain to the legal entity listed as a participant. Check all boxes that apply.

11. **Signature**

Read this block, and sign and date it to acknowledge your participation on the proposal team. Faxed signatures are acceptable in the original document if that helps assemble it on time.

INSTRUCTIONS FOR COMPLETING THE STAGE I TOTAL COST SUMMARY SHEET (C-4) OR MILESTONE COST SUMMARY SHEET (C-5)

NOTE

This template can be used as both the Total Cost Summary Sheet and as the Milestone Cost Summary Sheet by checking the appropriate box at the top.

- There should be one C-4 per proposal, placed at the top of your proposal
- Each of your proposed payable milestones should have a C-5. The sum of the C-5s will yield the C-4
- **These are cost summaries and must be backed up by other data in your cost proposal.**
- The costs covered by these sheet should be only of expenditures needed to carry out Stage I. Do not include costs of activities not under the SOW or under the control of the project management.

1. Proposal Title

Enter you proposal title exactly as shown on the Cover Sheet C-1.

2. (for C-4) Performance

Enter Stage I's duration in months

2. (for C-5) Milestone Number and Title

Indicate the name and number of the payable milestone covered by the summary

For each column fill in all elements of cost which apply (See Elements of Cost).

3. Project Cost

Cost of the Stage I SOW or Milestone for that element

4. Cost Share from Proposal Team

The amount the proposal team proposes to spend on that element of the Total SOW or Milestone.

5. DUAP Funds Requested

This is difference between what the project team will spend on the Stage I SOW or Milestone and it's estimated costs [3 Minus 4].

Elements of Cost

- a. **Labor** - Labor includes both the direct labor and the relevant indirect expenses closely associated with labor that will be spent on the Stage I SOW.
- b. **Fringe Benefits** - Normal and reasonable personnel benefits not included in other indirect costs.
- c. **Travel** - Proposed travel expenditures. Each member of the team should provide additional supporting information showing the number of trips and purpose of each.
- d. **Equipment** - Prorated cost of equipment leased or purchased that is used to carry out the SOW .
- e. **Direct Materials/Supplies** - Total direct material to be acquired and/or consumed in the performance of the SOW. Additional supporting information should be provided limited to only major items of material and how the estimated expense was derived.
- f. **Contracts** - The cost of any subcontracts required to carry out the SOW
- g. **Other Direct Costs** - Not included above. Offerors should give specific details on these costs.
- h. **Total Direct Costs** - Total of rows (a) through (g).
- j. **Indirect Costs** - Indirect costs on elements of cost. Additional supporting information should be provided by the project team limited to the rates used and how derived.
- k. **Total Cost:** Total Direct Cost (h) + Indirect Costs (j).
- l. **Percent Cost Share:** Total Proposers' Cost Share (4)/Total Project Cost (3).